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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/622,020	08/08/2000	Jun-Woo Lee	51876.P194	6633

7590 02/12/2003

Blakely Sokoloff Taylor & Zafman
12400 Wilshire Blvd 7th Floor
Los Angeles, CA 90025-1026

EXAMINER

NGUYEN, TU X

ART UNIT	PAPER NUMBER
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2682

DATE MAILED: 02/12/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/622,020

Applicant(s)

LEE ET AL.

Examiner

Tu X Nguyen

Art Unit

2682

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE ____ MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-27 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-27 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) ____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

2. Claims 1-20 and 22-27, are rejected under 35 U.S.C. 102(e) as being anticipated by Scott (US Patent 6,388,997).

As to claims 1, 6, 10, 15, 18-19, 24, Scott discloses a method for expanding cell coverage in mobile communication system comprising the steps of:

a) shifting a preamble access window by advancing a transmission signal by a first delay time in order to acquire a first call access signal from a mobile station at a remote distance (see col.4 line 34 through col.5 line 30). The examiner interprets "advance or retard timing" corresponds to "shifting"; and

b) delaying a second call access signal from a mobile station at a short distance by a second delay time in order to acquire the second call access signal (see col.38 lines 11-50).

As to claim 2, Scott discloses step a) includes the step of expanding a length of the preamble access window to a maximum value by adjusting a length of chips included in the transmission signal (see col.23 lines 1-37).

As to claims 3, 7, 16 and 22, Scott discloses step b) includes the steps of:

Determining whether the second call access signal from the mobile station is acquired by the preamble access window (see col.38 lines 11-30); and

Accessing the second call access signal to the preamble access window by delaying the second call access signal if the second call access signal is not acquired (see col.38 lines 30-50).

As to claims 4, 8, Scott discloses the first delay time is substantially equal to the second delay time (see col.38 lines 11-50). The examiner interprets "propagation round trip delay" from user station to base station taking into account the delay time; therefore, if the distance from mobile stations to base station is substantially equal, the access delay time from the first mobile stations to base station and the access delay time from second mobile station is also substantially equal.

As to claims 5, 9, 14, Scott discloses the second call access signal is delayed by a feedback delay (see col.9 lines 25-40). The examiner interprets "guard time" corresponds to "feedback delay".

As to claims 11, 17, Scott discloses everything as to claim 1 above. More specifically, Scott discloses "Pseudo noise signal" (see col.25 lines 1-5).

As to claim 12, Scott discloses everything as to claim 10 above. More specifically, Scott discloses "demodulating the delayed received signal and restoring the call access signal" (see col.17 lines 51-64 and col.18 lines 37-51).

As to claim 20, Scott discloses "feedback delay" and "length of the preamble access window" renders obvious all limitations over claim rejections 2 and 5.

As to claim 25, Scott discloses the second call access signal is substantially delayed for 20us by the feedback delay (see col.8 lines 11-20).

As to claims 26-27, Scott discloses everything as to claim 1 above. More specifically, Scott discloses "expanding a length of a current preamble access window to a maximum value (see col.23 lines 1-37).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claim 21 is rejected under 35 U.S.C. 103(a) as being unpatentable over Scott and further in view of Jiang et al. (US Patent 6,212,405).

As to claim 21, Scott fails to disclose the cell radius is expanded 45KM or more.

Jiang et al. disclose the cell radius is expanded more than 45KM (see col.6 lines 32-51). Therefore, It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the system of Scott with the above teaching of Jiang et al. in order to provide an extended cell size coverage for a base station that will cause signals transmitted by mobile station within their respective cells to be received within the confines of search windows associated with round trip delay timing protocols.

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Conclusion

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tu Nguyen whose telephone number is (703) 305-3427. The examiner can normally be reached on Monday through Friday from 8:30 a.m. to 5:00 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vivian Chin, can be reached at (703) 308-6739.

Any inquiry of a general nature or relating to the status of this application should be directed to the Technology Center 2600 Customer Service Office at (703) 306-0377.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks
Washington, D.C. 20231

or faxed to:

(703) 872-9314 (Technology Center 2600 only)

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA., Sixth Floor (Receptionist).

TN

January 9, 2003

Nguyen Vo
2/7/03

NGUYENT.VO
PRIMARY EXAMINER